CLAIMS

1. A piezoelectric device constituted by mounting and joining a piezoelectric element plate to a package,

wherein the piezoelectric element plate is rectangular as seen from above, one surface of the piezoelectric element plate is formed to be flat, and the other surface of the piezoelectric element plate is worked at both longitudinal end parts in a manner such that the thickness of the end parts gradually reduces toward both longitudinal end faces, and

wherein the package and the piezoelectric element plate are joined with each other via a bump formed between the upper surface of the package and one longitudinal end part on said other surface of the piezoelectric element plate.

2. The piezoelectric device according to claim 1, wherein beveling circular arc form is formed at both end parts on the non-flat side surface of the piezoelectric element plate.

3. A method for manufacturing a piezoelectric device, comprising:

forming a bump on a package;

mounting a piezoelectric element plate which is rectangular as seen from above, the upper surface of which is formed to be flat, and the lower surface of which is worked at both longitudinal end parts in a manner such that the thickness of the end parts gradually reduces toward both longitudinal end faces, on the package to join the piezoelectric element plate to the package at one of the

longitudinal end parts on the lower surface of the piezoelectric element plate via the bump with the upper surface of the piezoelectric element plate as reference; and

joining the piezoelectric element plate to the package via the bump while pressing the piezoelectric element plate against the package.

4. The method for manufacturing the piezoelectric device according to claim 3, further comprising:

adsorbing one of the longitudinal end parts of the piezoelectric element plate by an adsorbing nozzle to mount the piezoelectric element plate on the package with the flat upper surface of the piezoelectric element plate as reference; and

joining the piezoelectric element plate to the package by applying ultrasonic waves while pressing the piezoelectric element plate against the package.

5. A method for manufacturing a piezoelectric device, comprising:

forming a bump at one longitudinal end part of the lower surface of the piezoelectric element plate which is rectangular as seen from above, the upper surface of which is formed to be flat, and the lower surface of which is worked at both longitudinal end parts in a manner such that the thickness of the end parts gradually reduces toward both longitudinal end faces;

adsorbing one of the longitudinal end parts of the upper surface of the piezoelectric element plate by an adsorbing nozzle;

mounting the piezoelectric element plate adsorbed by the adsorbing nozzle on a package; and

joining the piezoelectric element plate to the package by applying ultrasonic waves to the bump positioned between the package and the one of the longitudinal end parts on the lower surface of the piezoelectric element plate via the adsorbing nozzle while pressing the piezoelectric element plate against the package by means of the adsorbing nozzle.

6. The method for manufacturing the piezoelectric device according to claim 4 or 5, wherein an extraction electrode extracted from an exciting electrode mounted on the upper surface of the piezoelectric element plate is provided on said one of the longitudinal end parts on the upper surface of the piezoelectric element plate, and wherein the adsorbing nozzle has a recess formed at the tip part of the nozzle for adsorbing the piezoelectric element plate while preventing contact with the extraction electrode.

7. The method for manufacturing a piezoelectric device according to any one of claims 3, 4 and 5, wherein a beveling circular arc form is formed at both end parts on the surface of the non-flat side of the piezoelectric element plate.